

## I Claim:

1. A method of calculating noise level in a signal, comprising the steps of:
  - 5 accumulating two sample windows of said signal;  
  
calculating energy of said signal within each of said sample windows;  
  
calculating the difference in said energy of said signal within each of said  
10 sample windows;  
  
updating a variance parameter based on said difference;  
  
in the event that said variance parameter is less than a predetermined multiple  
15 of the energy of said signal within a most recent one of said sample windows then  
indicating the presence of noise and setting a noise level parameter as a function of the  
energy of said signal within said most recent one of said sample windows, and in the  
event that said variance parameter is greater than or equal to than said predetermined  
multiple of the energy of said signal within said most recent one of said sample  
20 windows then indicating the absence of noise in said most recent sample window; and  
  
in the event that said noise level parameter exceeds the energy of said signal  
within said most recent one of said sample windows then setting said noise level  
parameter to equal the energy of said signal within said most recent one of said  
25 sample windows.
  2. The method of claim 1, further comprising the steps of discarding two  
successive ones of said sample windows at start up and for each subsequent first one  
of said two successive sample windows which exceeds a predetermined maximum  
30 energy.

3. The method of claim 1, wherein said step of updating said variance parameter further comprises the steps of:

5 comparing said variance parameter to said difference in said energy of said signal within each of said sample windows and setting said variance parameter to the weighted average of the difference and a previous value of the variance parameter; and

10 in the event that said variance parameter is greater than said difference then adjusting said variance parameter with a predetermined decay ratio, and in the event that said variance parameter is less than or equal to said difference then adjusting said variance parameter with a predetermined attack ratio..

15 4. The method of claim 1, wherein said step of setting the noise level parameter as a function of the energy of said signal within said most recent one of said sample windows further comprises setting said noise level parameter to the weighted average of the energy of said signal within said most recent one of said sample windows and a  
20 previous value of said noise level parameter.